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Leukaemia Section
Short Communication

t(3;5)(q21;q31)

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This article is an update of :
t(3;5)(q21;q31)/ANLL (AML; ---; not rare). Atlas Genet Cytogenet Oncol Haematol

Abstract

Review on t(3;5)(q21;q31), with data on clinics, and the genes implicated.

Clinics and pathology

Disease

Acute myeloid leukemia (AML), myelodysplastic syndrome (MDS), and myeloproliferative disorder (MPD)

Note

26 cases of t(3;5)(q21;q31) in myeloid malignancy are available (Oshimura et al., 1976; Dewald, 1984; Bitter et al., 1985; Testa et al., 1985; Werner-Favre et al., 1985; Pi and Kalousek, 1986; Smadja et al., 1986; McCarthy et al., 1987; Sharp et al., 1987; Akiyoshi et al., 1991; Katz et al., 1992; Solé et al., 1992; Secker-Walker et al., 1995; Wong and Kwong, 1995; Groupe Français de Cytogénétique Hématologique, 1996; Dong et al., 1998; Mazzella et al., 1998; Misawa et al., 1998; Green et al., 1999; Berger et al., 2006; Lugthart et al., 2010). We have excluded from this review a case of acute lymphoblastic leukemia (Chen et al., 1992).

Phenotype/cell stem origin

There was 5 M6-AMLs, 2 M4-AMLs, 10 M2-AMLs, and 6 AMLs not otherwise specified (AML-NOS), 1 myeloid metaplasia with myelofibrosis (MMM) in acute phase, another myeloproliferative syndrome not otherwise specified, and a refractory anemia with excess of blasts in transformation (RAEB-t).

There was no reference with a previous toxic exposure.

Epidemiology

Median age was 36-38 years (range 3-85, with two pediatric cases aged 3); sex ratio was 11M/14F.

Prognosis

Data on survival is very scarce (patients alive at 3 months, 21 months, 29 months, and 30 months; and patients dead at 7 and 9 months).

Cytogenetics

Cytogenetics morphological

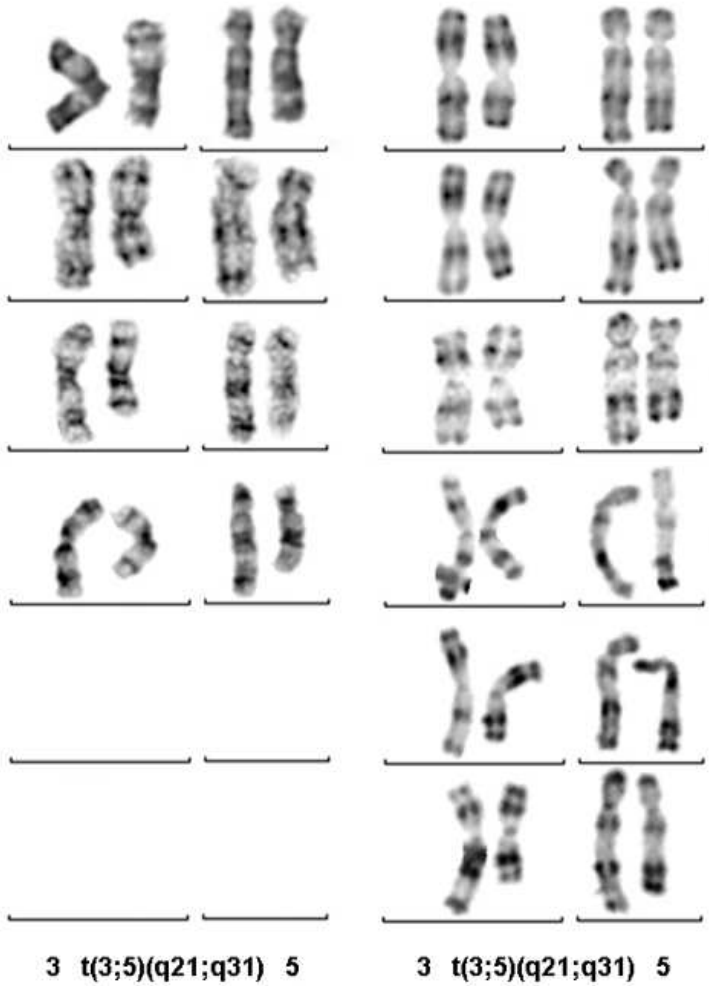
The t(3;5)(q21;q31) was the sole anomaly in 20 of 25 cases.

Complex karyoptypes were present in 3 cases. A del(5q)/-5 was found in one case, a del(7q)/-7 was found in two cases, and a +8 in two cases.

Genes involved and proteins

Note

The genes involved in this translocation remain unknown.



t(3;5)(q21;q31). G- banding (left) - top three: Courtesy Christine Perot; bottom: Courtesy Francine Mugneret; and R- banding (right) - top three: Courtesy Christine Perot; bottom three: Courtesy Francine Mugneret.

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